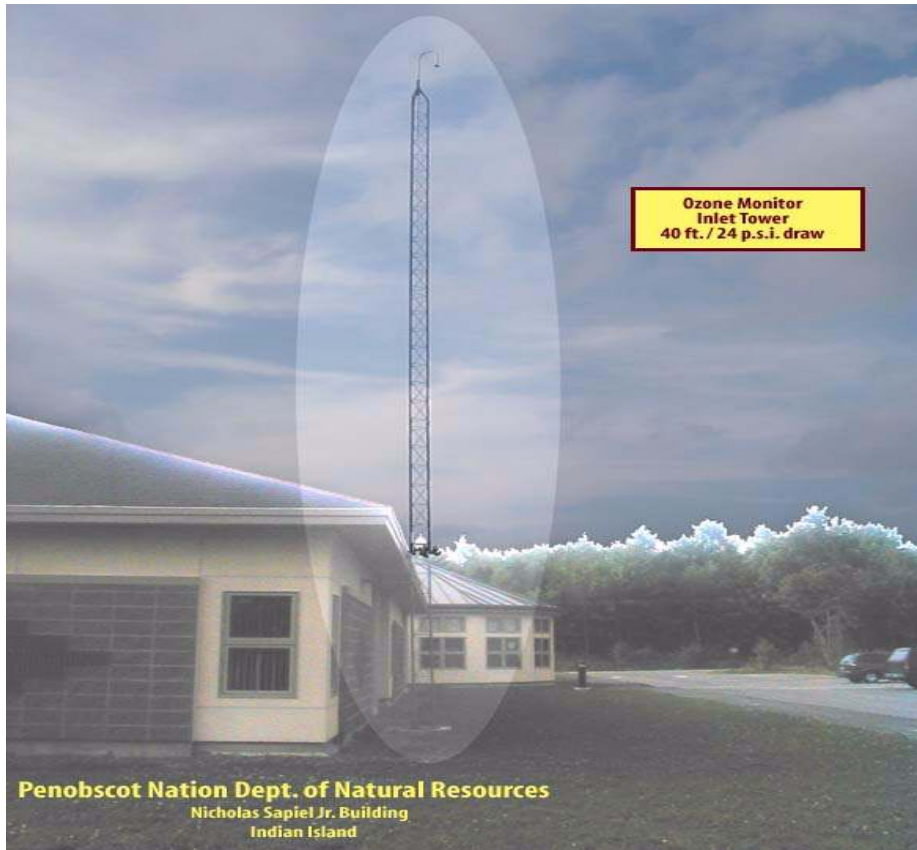




EPA New England

R1 Tribal Air Monitoring Program

Leveraging Resources





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(Presently Vacant)



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Environmental Progress

🌟New England Tribal Air Monitoring Network:

🌟 Over the few years, the following air monitoring network has been developed:

3 IMPROVE PM monitoring sites

2 acid rain monitoring sites;

1 mercury monitoring site;

4 ozone monitoring sites

1 continuous NO₂, SO₂, CO and CO₂ monitoring site

2 PM_{2.5} continuous monitoring sites

1 HAZE-CAM

🌟Tribes are working collaboratively with state and EPA regional office air monitoring staffs. For example, states have loaned ozone and PM monitors to several tribes and have provided technical support and auditing for the tribes. This process provides an opportunity for tribes, states and EPA to work together to collect critical monitoring data for the benefit of all citizens.



Leveraging Resources

- **The Passamaquoddy Tribe, Pleasant Point**, located in Eastern Maine was interested in measuring air quality at their reservation to gather background information prior to potential development in the area.
- **Maine DEP** (ME DEP) also wanted air quality data for Eastern Washington County to compare with one of their sites that was impacted by sea fog.
- **EPA** needed a site in eastern Maine to improve the **AIRNOW** ozone map and to measure trans-boundary pollutant concentrations

Leveraging Resources cont.

- As none of the agencies had the resources to conduct this monitoring on their own, **A DEAL WAS MADE!!**
- **The Tribe** agreed to operate an air monitoring site and cover the operational cost. **ME DEP** provided the air monitoring shelter, an ozone monitor and calibrator and agreed to provide technical assistance, training and audits. **EPA** provided grant funds to purchase a data logger, arranged with Connecticut DEP to provide a PM2.5 continuous air monitor and provided AQS training.
- ME DEP has now shut down their ozone monitoring site and will use the tribal site.

Environmental Results & Air Quality Management

- **The Wampanoag Tribe of Gay Head (Aquinnah)**, located on Martha's Vineyard, Massachusetts, was concerned that Massachusetts DEP (MA DEP) was unable to conduct ozone air quality monitoring on Martha's Vineyard where the tribe expected air quality levels to exceed the NAAQS.
- **EPA, MA DEP and the Tribe** met to discuss and agreed that ozone monitoring on Martha's Vineyard would be important.
- **EPA** provided grant funds for an ozone monitor, calibrator and a data logger. **MA DEP** agreed to provide technical support, enter the data into AQS and conduct audits. **The Tribe** agreed to operate the ozone monitor, an IMPROVE monitor, and cover the operational costs.

Environmental Results & Air Quality Management cont.

- **The data is also submitted to EPA's AIRNOW national ozone mapping program. The first year of complete operation was 2005.**
- **Over the last two years the tribal site has recorded some of the highest ozone concentrations measured in Massachusetts. In 2006, this was the only site in Eastern Massachusetts to record a fourth high day over the 8-hr NAAQS. If the site records similar air quality levels next year, it will result in continued non-attainment.**

External Funding

- **The Aroostook Band of Micmacs**, located in Presque Isle, Maine, was concerned with impacts of several external sources on the tribal housing area and felt it was necessary to conduct a comprehensive air monitoring program.
- With the assistance of the **EPA Regional Office**, the tribe applied for funding under an EPA grant program and received an award of \$290,000 from EPA's Office of Research and Development.
- **ME DEP** agreed to provide technical assistance and audits.

External Funding cont.

- **As part of this project, the Micmacs are able to monitor air quality data including nitrous oxides (NO_x), sulfur dioxide (SO₂), fine particulate matter, ozone, and visibility (using a digital camera) in real time.**
- **This data is immediately available to the public on a web site, through the local media, and on EPA's AIRNOW web page.**
- **Local papers and local television and radio outlets have agreed to broadcast air quality updates using the project's data.**
- **Tribal staff and others also use the data to generate alerts on poor air quality days, by warning susceptible populations to limit outdoor activities. The public can also subscribe to e-mail alerts when air quality is poor.**

Aroostook Band of Micmacs

Tribal Air Monitoring Program

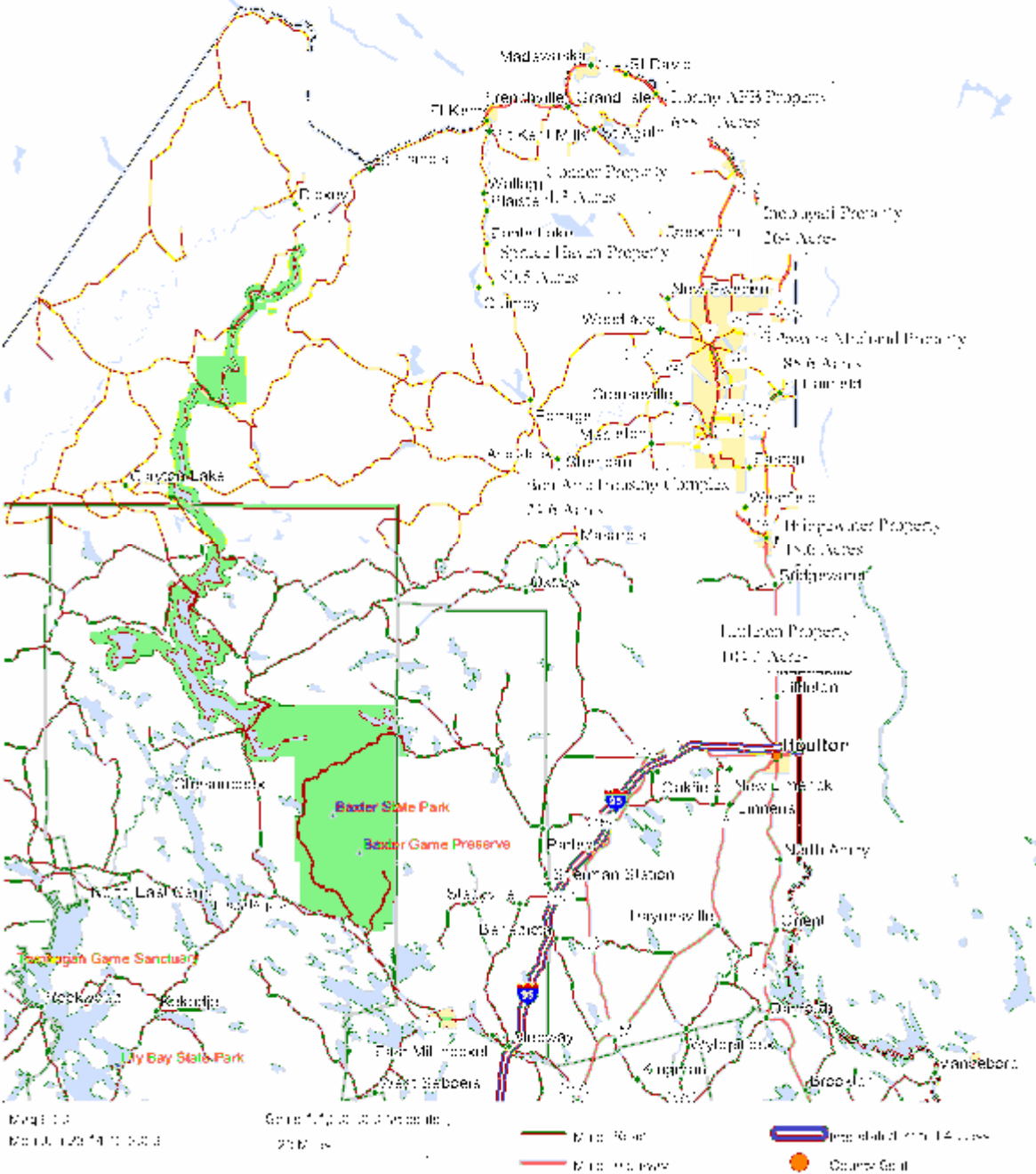


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Miemic Tribal Land Holdings (June 2003)



TRIBAL AIR QUALITY CONCERNS

Respiratory Illness

Plant and Animal Health

Local Pollutant Sources

**Long-Range Transport
Pollutants**

Mold and Mildew

Radon

IMPROVE MONITORING

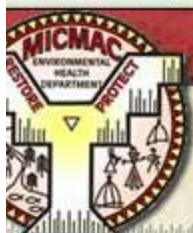
(Interagency Monitoring of Protected Visual Environments)



REAL-TIME CONTINUOUS AIR QUALITY MONITORING

NO_x, SO_x, CO, CO₂, PM 2.5, O₃, Scene Monitoring





Micmac Environmental Health Department

Presque Isle, Maine
46° 41' 47.07" N
68° 01' 59.36" W
Elevation 540 Feet

Micmac Environmental Health Department Home

Air Quality & Weather Links:

[Current Air Quality &
Weather Conditions](#)

[Real-Time &
Historic Data](#)

[Site Information](#)

[Instrumentation](#)

[Pollutants](#)

[National Standards
\(NAAQS\)](#)

[AQI Information](#)

Laboratory Links:

[Micmac Lab Home](#)

[About Us](#)

[Quick Water Test
Guide](#)

[Water Testing
Services](#)

[Drinking Water
Information](#)

[Order Sample Test
Kits](#)

[Directions to the Lab](#)

Micmac Environmental Health Department



View from Presque Isle, ME hazecam.

[Current Air Quality & Weather Conditions](#)

Data updated on an hourly basis plus information on pollutants, instrumentation, Air Quality Index and the Presque Isle monitoring site.



[Micmac Environmental Laboratory](#)

"State of Maine Certified Drinking Water Laboratory"



Micmac Environmental Health Department Air Quality and Weather Monitoring Station

Presque Isle, Maine
46° 41' 47.07" N
68° 01' 59.36" W
Elevation 540 Feet

- Micmac Environmental Health Department Home
- Current Air Quality & Weather Conditions
- Real-Time & Historic Data
- Site Information
- Instrumentation
- Pollutants
- National Standards (IAAQs)
- AQI Information

Click here to be added to the Air Quality Alert Mailing List.

Current Air Quality & Weather Conditions

Current Air Quality:
Critical Pollutant:

Good
PM_{2.5}



Hazecam at Presque Isle, Maine
Updated every 15 minutes
[Click here for larger image](#)
or log on to www.hazecam.net

All parameters (Last updated at 13:00 EST on 9/15/06)

Pollutant	AQI	Current Averages		
		1-hr	8-hr	24-hr
Ozone	21	31 ppb	17 ppb	
PM_{2.5}	27	8.0 µg/m ³		8.3 µg/m ³
SO₂	0	0.2 ppb		0.2 ppb
NO₂		1.0 ppb		
CO	2	0.2 ppm	0.2 ppm	
CO₂		-		

[Click here for current pollutant graphs](#)



[What is the AQI scale?](#)

Current Weather Conditions (Last updated at 13:00 EST on 9/15/06)			Today's Highs & Lows (Time of occurrence in EST)	
Parameter <small>Click for definition</small>	Hourly Averages		Maximum hour	Minimum hour
	Metric	English		
Air Temperature	22.2 °C	72.0 °F	22.2 °C/72.0 °F 12:00	13.7 °C/56.7 °F 1:00
Wind Chill	-	-	-/-	-/-
Dew Point	14.3 °C	57.7 °F	14.3 °C/57.7 °F 7:00	13.2 °C/55.7 °F 1:00
Relative Humidity	61%		98% 2:00	61% 12:00
Wind Speed	3.2 m/s	7.1 mph	3.2 m/s/7.1 mph 12:00	0.1 m/s/0.3 mph 2:00
Wind Gusts	6.1 m/s	13.6 mph	6.1 m/s/13.6 mph 12:00	1.5 m/s/3.4 mph 1:00
Wind Direction	WSW 239.8°; St. Dev. 21.7°			
Barometric Pressure	1012.7 mbar	29.91 inHg	1014.1 mbars/29.9 inHg 8:00	1012.0 mbars/29.9 inHg 0:00
Solar Radiation	727.3 w/m ²		739 w/m ² 10:00	
Rain Accumulation	0.0 mm	0.00 in	Today's rainfall total: 0.0 mm / 0.00 in	

[Click here to be added to the Air Quality Alert Mailing List.](#)

Micmac Monitoring Site Presque Isle, ME

[Site View](#) [State Map](#) [Street Map](#) [Aerial View](#)



Presque Isle Site Information

- Address: 8 Northern Road
- County: Aroostook
- Site established: 2004
- Current status: Active
- Site coordinates:
 - Latitude: 46° 41' 47.07" (46.696388°)
 - Longitude: 68° 01' 59.36" (68.033138°)
 - Elevation: 165 m (540 ft)
- Parameters currently being monitored:
 - Pollution parameters:
 - Ozone (O₃)
 - PM_{2.5} Continuous (TEOM)
 - Carbon Monoxide (CO)
 - Trace-Sulfur Dioxide (SO₂)
 - Trace-Nitrogen Dioxide (NO₂)
 - Carbon Dioxide (CO₂)
 - Meteorological parameters:
 - Temperature
 - Barometric Pressure
 - Wind Speed
 - Wind Direction
 - Wind Gusts
 - Relative Humidity
 - Dew Point
 - Solar Radiation
 - Rainfall

